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Studies on the Oriental Cydnidae (Heteroptera)

II. Three new genera and species

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Abstract. *Pseudoscoparipes nilgircus* gen. et spec. nov. from South India, *Scoparipoides yangi* gen. et spec. nov. from Vietnam and *Geopeltus tuberculatus* gen. et spec. nov. from Sri Lanka are described and figured. The new genera belong to the sub-family Cydninae.

Key words. Oriental Region, Heteroptera, Cydnidae, new genera, new species.

Pseudoscoparipes gen. nov.

Diagnosis: The new genus is closely allied to *Scoparipes* Signoret by the compressed hind tibiae, a shape of scent gland peritreme and the general habitus. It could easily be separated from *Scoparipes* by a combination of three features: the inner surface of male and female hind tibiae with a line of few hairs only (fig. 7), the terminal lobe of peritreme with narrow polished area (fig. 6) and penis with slender ductus seminis extending slightly beyond theca (fig. 5). The features in *Scoparipes* Sign. are, respectively: the inner surface of male posterior tibia with a line of many short, very close stiff hairs (fig. 8), the terminal lobe of peritreme with polished area occupying almost a half of the lobe, and penis with very long and stout ductus seminis (Signoret 1879, 1881; Distant 1902; Lis 1990).

Description: Body length about 10,0—12,0 mm. Head as in fig. 2; paraclypei rounded, equal to or slightly longer than clypeus and bearing a row of submarginal setigerous punctures; clypeus with a pair of apical setigerous punctures; eyes projecting beyond lateral margins of head; antennae 5-segmented, 2nd segment longer than 3rd.

Pronotum wider than long, laterally with many setigerous punctures. Corium densely punctured, costa with 8—9 setigerous punctures. Scutellum longer than wide (fig. 1). Scent gland peritreme terminating in the broad lobe with the opening surrounded by a hood-like auricle; the latter with very narrow polished area (fig. 6). Legs with hind tibiae compressed, length/width ratio about 7,8—9,5; the inner surface of male and female hind tibiae with a line of few hairs only (fig. 7). Penis almost straight, with slender ductus seminis (fig. 5).

Type-species: *Pseudoscoparipes nilgircus* spec. nov.

Distribution: South India.

Pseudoscoparipes nilgircus spec. nov. (figs 1—7)

Diagnosis: This is the only species known to belong to the new genus.

Description: Head black, sometimes with lateral margins brown, about 1,38—1,48x wider than long; paraclypei equal to or only slightly longer than clypeus

(fig. 2), lateral margins of paraclypei slightly reflected upwards, submargins with 11—13 setigerous punctures; clypeus with a pair of apical setigerous punctures; paraclypei distinctly striated and weakly punctured, vertex smooth; eyes reddish brown or yellowish brown, projecting beyond lateral margins of head; ocelli have same colour as eyes, ocular index 3,72—4,25, interocellar distance 2,40—2,83x distance of ocellus from eye; antennae 5-segmented, 1st and 2nd segment cylindrical and smooth, 3rd, 4th and 5th segments strongly pilosed; rostrum brownish black, always extending beyond mid-coxae, in some cases reaching even posterior ones.

Pronotum (fig. 1) black or blackish brown, about 1,59—1,74 times wider than long, puncturation as in fig. 1; lateral margin with submarginal row of 19—23 (female) or 25—28 (male) setigerous punctures. Scutellum black or blackish brown, puncturation as in fig. 1; apex rounded. Corium black or blackish brown, equally punctured, longer than scutellum; costa with 8—9 setigerous punctures. Membrane brown, almost equal in length to abdomen.

Scent gland peritreme with a hood-like terminal lobe; the latter with very narrow polished area (fig. 6). Venter glossy in the middle, punctured and striated on sides. Legs brownish black, tarsi brown; fore tibiae broad, with stout blunt spines on dorsal margin, male and female hind tibiae compressed with a line of few hairs on the inner surface, length/width ratio about 7,86-9,35 (fig. 7).

Penis almost straight, with slender ductus seminis (fig. 5); paramere as illustrated (figs 3—4).

Measurements (mm) (male followed by female): body length 10,92; 10,11—11,73; body width 6,23; 6,37—7,08; head length 1,80; 1,68—1,80; head width 2,56; 2,44—2,63; pronotum length 3,64; 3,54—3,93; pronotum width 5,80; 5,70—6,25; scutellum length 3,88; 3,88—4,52; scutellum width 4,03; 4,03—4,33; antennal segments 0,63: 0,93: 0,85: 4th and 5th missing; 0,58—0,63: 0,71—0,80: 0,46—0,73: 0,73—0,98: 0,76—0,83.

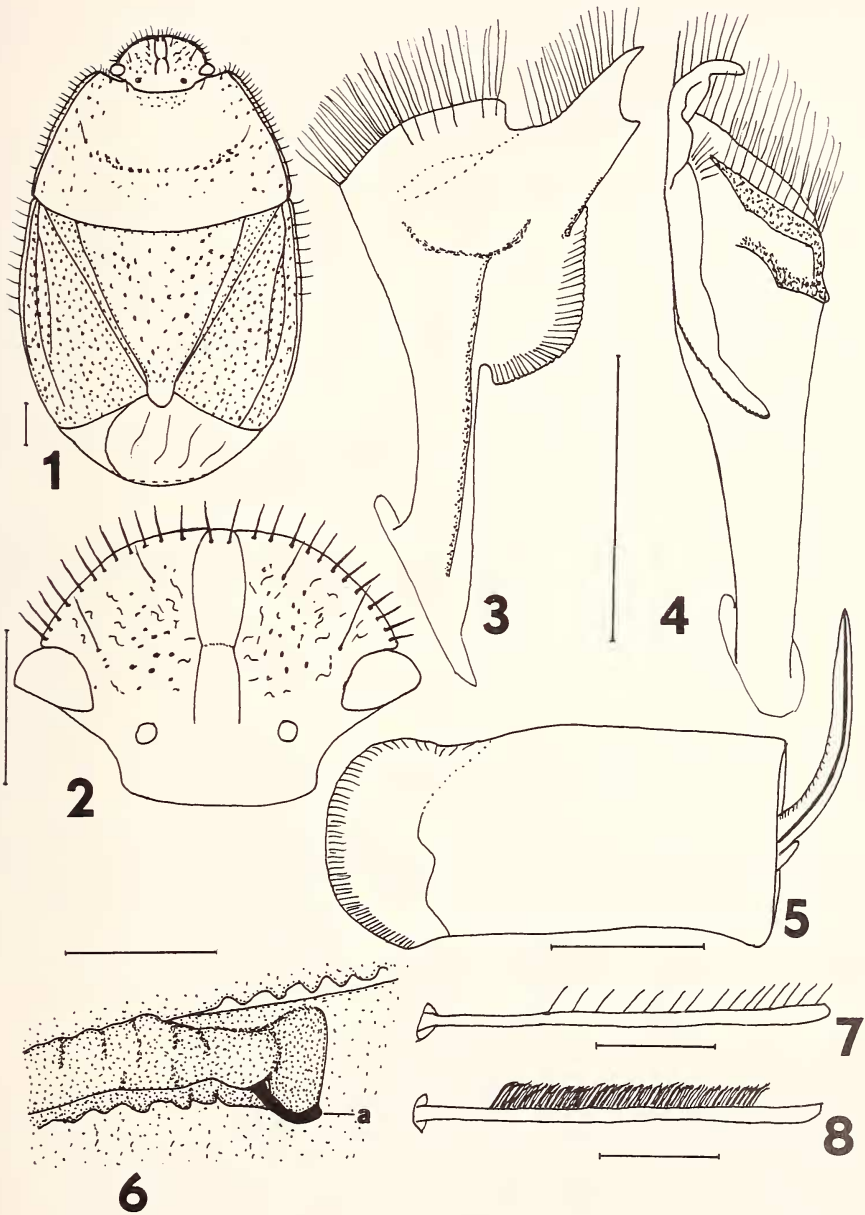
Type material: Holotype male, South India, Devala, 3200 ft, Nilgiri Hills, V 1961, P. Susai Nathan, Museum Leiden; in the collection of Rijksmuseum van Natuurlijke Historie in Leiden, the Netherlands; Paratypes: 3 females with the same data as the holotype; 1 female labelled South India, Madras State, Anamalai Hills, Kadamparai, 3500 ft, V 1963, P. Susai Nathan, Museum Leiden; together with the holotype.

Scoparipoides gen. nov.

Diagnosis: The new genus is allied to *Scoparipes* Sign. and *Pseudoscoparipes* gen. nov. especially by compressed hind tibiae and the general habitus; it could easily be separated from both related genera by the shape of the terminal lobe of scent gland peritreme (fig. 11) and by having the head bearing one additional pair of primary setigerous punctures (fig. 10).

Description: Body length about 9,5 mm. Head as in fig. 10; paraclypei equal in length to clypeus and submarginally with a row of setigerous punctures; clypeus with a pair of apical setigerous punctures; the additional pair of primary setigerous punctures present close to ocelli; eyes projecting beyond lateral margins of head; 2nd antennal segment longer than 3rd.

Pronotum (fig. 9) wider than long, anterior margin deeply sinuated, lateral margin with a submarginal row of setigerous punctures. Corium equally punctured; costa



Figs 1-8: 1-7. *Pseudoscoparipes nilgircus* gen. et spec. nov.: 1 - dorsal view, 2 - head, 3 - left paramere, ventral aspect, 4 - left paramere, lateral aspects, 5 - penis, 6 - peritreme (a - polished area), 7 - hind tibia of male, lateral aspect. 8. *Scoparipes* sp. - hind tibiae of male, lateral aspect. Scale 1 mm (figs 1-2, 7-8); Scale 0,5 mm (figs 3-6).

with 14—15 setigerous punctures. Scutellum shorter than corium. The terminal lobe of scent gland peritreme elongated as in fig. 11. Legs with hind tibiae compressed, length/width ratio about 5,6—5,7; the inner surface of hind tibiae with a few hairs only.

Type-species: *Scoparipoides yangi* spec. nov.

Distribution: At present known only from Vietnam.

Scoparipoides yangi spec. nov. (figs 9—11)

Diagnosis: This is the only species in the new genus.

Description (female only): Head (fig. 10) black, punctured, about 1,58x as wide as long; clypeus equal in length to paraclypei and with a pair of apical setigerous punctures, paraclypei bearing the submarginal row of 13 setigerous punctures and the additional pair of primary setigerous punctures close to ocelli; eyes brown, projecting beyond lateral margins of head, ocular index about 3,8; ocelli yellowish brown, interocellar distance about 2,4x distance of ocellus from eye; antennae dark brown, 2nd segment longer than 3rd; rostrum brown, reaching anterior margin of mid-coxae, 3rd rostral segment longer than 4th.

Pronotum black, about 1,68x as wide as long, anterior margin deeply sinuated, puncturation as in fig. 9; lateral margins with the submarginal row of 27—28 setigerous punctures. Scutellum black, distinctly punctured. Corium has the same colour as scutellum and pronotum; costa with 14—15 setigerous punctures. Membrane brown, slightly extending beyond posterior extremity of abdomen.

Scent gland peritreme with elongated terminal lobe (fig. 11). Venter brownish black, glossy in the middle, sides striated and punctured. Legs brownish black, tarsi pale brown; fore tibiae broad, with 8—9 stout blunt spines on dorsal margin; hind tibiae compressed, length/width ratio about 5,6—5,7 (left and right tibia, respectively).

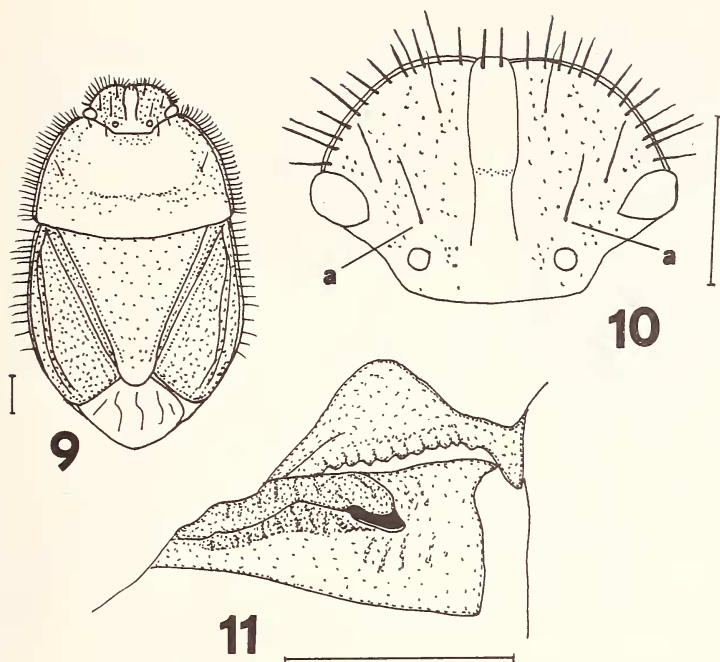
Measurements (in mm): body length 9,40; body width 5,76; head length 1,46; head width 2,32; pronotum length 3,10; pronotum width 5,21; scutellum length 3,69; scutellum width 3,74; antennal segments 0,54: 0,56: 0,49: 4th and 5th missing.

Type material: Holotype female, Muséum Paris, Annam, coll. des Nuages, près Tourane, M^{me} Poilane 1923, *Scoparipes* sp.?, We-I Yang det. 1935; in the collection of Muséum National d'Histoire Naturelle in Paris, France.

Geopeltus gen. nov.

Diagnosis: The new genus is best diagnosed by the combination of three features: 4-segmented antennae, scutellum and corium reaching 3/4 length of abdomen, and reduced membrane. The new genus is allied to *Cephalocteus* Dufour in external features but could easily be separated from the latter by 4-segmented antennae, large eyes and scutellum almost equal in length to corium. The features in *Cephalocteus* Duf. are, respectively: 5-segmented antennae, eyes small and almost invisible, scutellum distinctly shorter than corium (Dufour 1834; Signoret 1881; Distant 1902).

Description: Head with paraclypei longer than clypeus and not joined in front of the latter; lateral margins with the submarginal row of setigerous punctures; eyes large, projecting out; antennae 4-segmented, 2nd segment longest (fig. 15).



Figs 9—11: *Scoparipoides yangi* gen. et spec. nov.: 9 — dorsal view, 10 — head (a — additional pair of primary setigerous punctures), 11 — evaporatoria. Scale 1 mm.

Pronotum wider than long, laterally with the submarginal row of setigerous punctures. Corium reaching $3/4$ length of abdomen; membrane reduced and hardly visible. Scutellum almost equal in length to corium, apex acute.

Abdomen covered with short, brown hair-like bristles; the pattern of trichobothria as in other members of the subfamily Cydninae. Legs with hind tibiae almost cylindrical (fig. 16) and the 2nd tarsal segment shortest; fore tibiae somewhat compressed, with a few spines on dorsal margin.

Type-species: *Geopeltus tuberculatus* spec. nov.

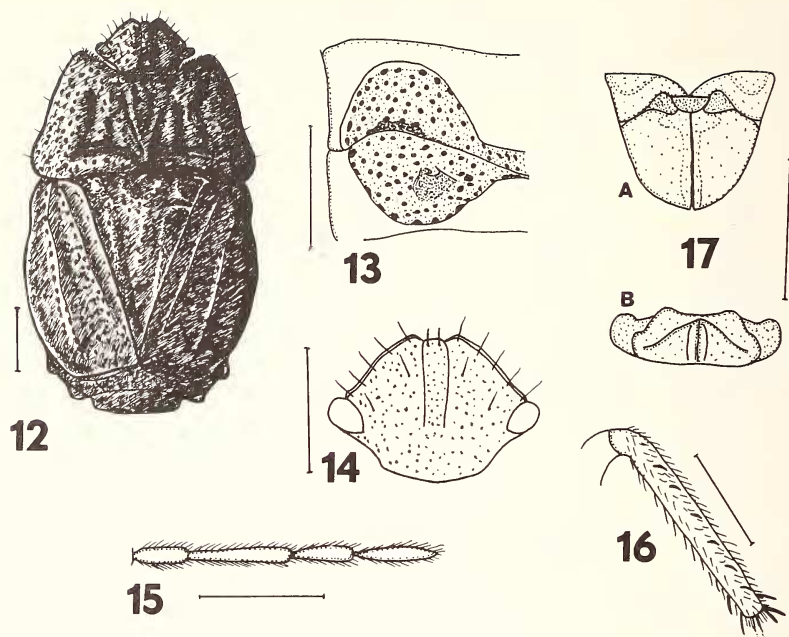
Distribution: Sri Lanka.

Geopeltus tuberculatus spec. nov. (figs 12—17)

Diagnosis: This is the only species known to belong to the new genus.

Description (female only): Head (fig. 14) black, distinctly punctured on the entire surface; clypeus slightly shorter than paraclypei and with two apical setigerous punctures; lateral margins with the row of 5 setigerous punctures; eyes large, projecting beyond lateral margins of head, brown; ocular index about 3,9; ocelli absent; antennae brown, 4-segmented, 2nd segment longest (fig. 15); rostrum brown, reaching anterior margin of hind coxae, 3rd rostral segment longer than 4th.

Pronotum (fig. 12) black, wider than long, distinctly punctured, with characteristic sculpture — broad and deep furrow close to the posterior margin, and median



Figs 12—17: *Geopeltus tuberculatus* gen. et spec. nov.: 12 — general habitus, 13 — evaporatoria, 14 — head, 15 — antenna, 16 — hind tibia, 17 — female terminalia (A — caudal aspect, B — ventral aspect). Scale 1 mm.

as well as lateral tuberosities; anterior margin deeply sinuated, lateral ones slightly insinuated behind the middle, submarginally with 5 (or more?) setigerous punctures; postero-lateral lobes covered with short, brown hair-like bristles.

Scutellum very long (fig. 12) and distinctly punctured, apex acute; antero-lateral parts with distinct tuberosities. Corium black, slightly longer than scutellum; mesocorium equally punctured, clavus and exocorium with weaker puncturation; membrane reduced and hardly visible, brown.

Dorsum black, punctured and covered with short hair-like bristles; connexivum of three last segments with postero-lateral tubercles. Evaporatoria as in fig. 13, blackish grey in colour. Venter black, sides punctured; segments covered with short, brownish hair-like bristles.

Female terminalia as in fig. 17 (A — caudal aspect, B — ventral aspect).

Legs black; fore tibiae dilated distally, with 6 spines on dorsal margin; hind tibiae almost cylindrical, with spines varying in length (fig. 16); tarsi brown, 3-segmented, 2nd segment shortest.

Measurements (in mm): body length 6,34; body width 3,74; head length 1,22; head width 1,71; pronotum length 1,90; pronotum width 3,58; scutellum length 2,95; scutellum width 2,17; antennal segments 0,46: 0,81: 0,51: 0,66.

Type material: Holotype female, Ceylan, VI 1889, H. Frühstorfer; in my collection at the Department of Natural History, Upper Silesian Museum in Bytom, Poland.

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Zusammenfassung

Drei neue Gattungen mit neuen Arten: *Pseudoscoparipes nilgiricus* gen. et spec. nov. aus Süd-Indien, *Scoparipoides yangi* gen. et spec. nov. aus Vietnam und *Geopeltus tuberculatus* gen. et spec. nov. aus Sri Lanka werden in dieser Arbeit beschrieben und abgebildet. Die neuen Gattungen gehören zur Unterfamilie Cydninae.

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